



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D130-1048-012
Job Sheet 196756



Part No: D130-1048-012

Job Qty: 1 pcs

Part Name: H130/EC130 - Skidtube - Standard w/ Basic Wearplates - RH



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/20/19

Job Tracking No:

Due Date: 7/12/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG D130-1048-012 REV.C/ IIN-D130-1048 REV.C IPP REV:A DP verify DD 17.07.09

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Sign-off
110	Handfinish - 4 - Assembly	1 pcs	7/12/19		0.00	1.00	Handfinish - 4 - 1	HL 19-8-22
							Handfinish - 4 - 10	
							Handfinish - 4 - 11	
							Handfinish - 4 - 12	
							Handfinish - 4 - 13	
							Handfinish - 4 - 14	
							Handfinish - 4 - 15	
							Handfinish - 4 - 2	
							Handfinish - 4 - 3	
							Handfinish - 4 - 4	
							Handfinish - 4 - 5	
							Handfinish - 4 - 6	
							Handfinish - 4 - 7	
							Handfinish - 4 - 8	
							Handfinish - 4 - 9	
120	QC 5	1 pcs	7/12/19		0.00	0.00	QC 5 - 10	
							QC 5 - 12	
							QC 5 - 17	
							QC 5 - 18	
							QC 5 - 19	
							QC 5 - 22	
							QC 5 - 24	
							QC 5 - 3	
							QC 5 - 43	
							QC 5 - 49	
							QC 5 - 51	
							QC 5 - 58	
							QC 5 - 68	
							QC 5 - 9	
							QC 5 - 50	
							QC 5 - 30	



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Container No: S208042



Part: D130-1048-012

Job No: 196756

Serial No/Batch: S208042

Revision: C/C

Inspector:

Exp Date:

Instructions: TC STC SH19-4 Issue 1, 5AA, STC SR04320N

6/20/2019

[Dart Hawkesbury] Job Sheet - Lajeunesse, Marie

DAG

AUG 26 2019

130 Packaging 1-1 - Pick Kit - B4B 1 pcs	7/12/19	0.00 0.00	QC 5 - 40	
			Packaging 1 - 1 - B4B	
			Packaging 1 - 2 - B4B	
			Packaging 1 - 3 - B4B	
			Packaging 1 - 4 - B4B	
			Packaging 1 - 5 - B4B	
			Packaging 1 - 6 - B4B	
			Packaging 1 - 7 - B4B	
			Packaging 1 - 8 - B4B	
			Packaging 1 - 9 - B4B	
			Packaging 1 - 10 - B4B	
			Packaging 1 - 11 - B4B	
			Packaging 1 - 12 - B4B	
			Packaging 1 - 13 - B4B	
			Packaging 1 - 14 - B4B	
			Packaging 1 - 15 - B4B	
			Packaging 1 - 16 - B4B	
			Packaging 1 - 17 - B4B	
			Packaging 1 - 18 - B4B	
			Packaging 1 - 19 - B4B	
			Packaging 1 - 20 - B4B	
			Packaging 1 - 21 - B4B	
			Packaging 1 - 22 - B4B	
			Packaging 1 - 23 - B4B	
			Packaging 1 - 24 - B4B	
			Packaging 1 - 25 - B4B	
			Packaging 1 - 26 - B4B	
			Packaging 1 - 27 - B4B	
			Packaging 1 - 28 - B4B	
			Packaging 1 - 29 - B4B	
			Packaging 1 - 30 - B4B	
			Packaging 1 - 31 - B4B	
			Packaging 1 - 32 - B4B	
			Packaging 1 - 33 - B4B	
			Packaging 1 - 34 - B4B	
			Packaging 1 - 35 - B4B	
			Packaging 1 - 36 - B4B	
135 QC 4 1 pcs	7/12/19	0.00 0.00	QC 4 - 28	
			QC 4 - 58	
			QC 4 - 69	
			QC 4 - 9	
			QC 4 - 46	
			QC 4 - 68	
			QC 4 - 72	
			QC 4 - 74	
140 Packaging 3-1 - Stock - B4B 1 pcs	7/12/19	0.00 0.00	QC 4 - 75	
			Packaging 3 - 1 - B4B	
			Packaging 3 - 2 - B4B	
			Packaging 3 - 3 - B4B	
			Packaging 3 - 4 - B4B	
			Packaging 3 - 5 - B4B	
			Packaging 3 - 6 - B4B	
			Packaging 3 - 7 - B4B	
			Packaging 3 - 8 - B4B	
			Packaging 3 - 9 - B4B	
			Packaging 3 - 10 - B4B	
			Packaging 3 - 11 - B4B	
			Packaging 3 - 12 - B4B	
			Packaging 3 - 13 - B4B	

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				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	DAS
155 DC - 1 - B4B	1 pcs	7/12/19	0.00 0.00	DC - 1 - B4B	21
				DC - 2 - B4B	8-89
165 QC 21 - SA	1 pcs	7/12/19	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	
				QC 21 - SA - 53	DAS
					21

SEP 05 2019

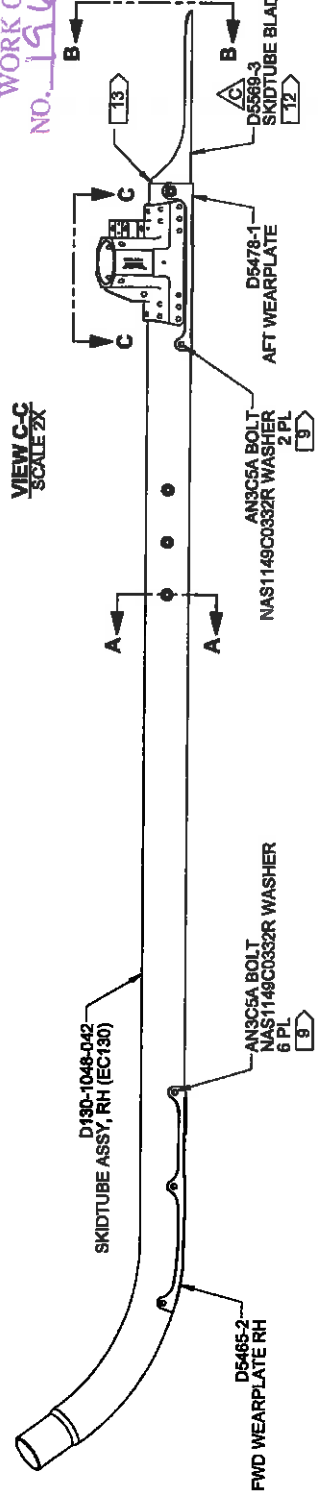
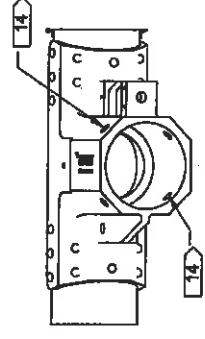
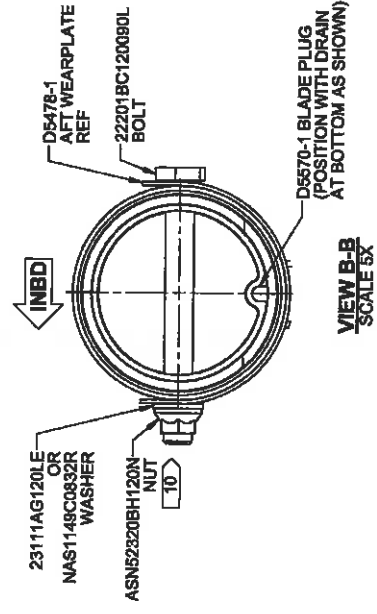
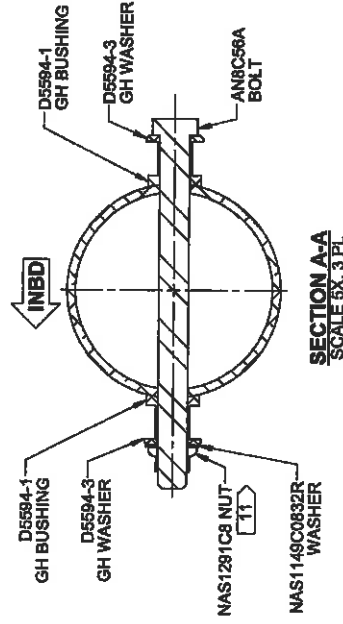
SEP 05 2019

Part Op 110 - ASSEMBLE AS PER DWG SEE DWG NOTES 9) TORQUE BOLT TO 15 - 25 In-lbs 10) TORQUE NUT TO 44 - 62
 Descriptions: In-lbs 11) TORQUE NUT TO 62 - 71 in-lbs 12) SEAL FAYING SURFACES WITH SIKAFLEX-241/-291 13) FILLET SEAL
 WITH SIKAFLEX-241/-291 14) PLUG SEAL SADDLE HOLES WITH SIKAFLEX-241/-291 SEALANT ENSURE SADDLE
 BORE IS FREE OF SEALANT
 120 - QC5- Inspect part completeness to step on W/O
 130 - Pick Kit BAG AND ID HARDWARE.
 135 - QC4- 100% Inspect kits for completeness
 140 - Identify and pack for shipping as per PPP D130-1048-012 Location: _____ PPP Rev: _____
 155 - Document Control - Photocopy blue file and create labels as per PPP D130-1048-012 chg 001
 165 - QC21- Final Inspection - Work Order Release

Job BOM					011558
Part / Item	Component Name	Quantity	Operation	Container	
22201BC120090L	Bolt	1 Ea (1 ea)	110-Handfinish - 4 - Assembly		5197858
23111AG120LE	Washer	1 Ea (1 ea)	110-Handfinish - 4 - Assembly		5135792
AN8C56A	Bolt	3 Ea (3 ea)	110-Handfinish - 4 - Assembly		5197957
ASN52320BH120N	Nut	1 Ea (1 ea)	110-Handfinish - 4 - Assembly		5198683
D130-1048-042	H130/EC130 - Replacement Skidtube - Standard - RH	1 pcs (1 ea)	110-Handfinish - 4 - Assembly		5203714
D130-1048-052	H130/EC130 - Wearplates - DART & OEM Replacement - Basic - RH	1 pcs (1 ea)	110-Handfinish - 4 - Assembly		5207985
D5569-3	Replacement Blade - Basic Aluminum	1 pcs (1 ea)	110-Handfinish - 4 - Assembly		5194976
D5570-1	Blade Plug	1 pcs (1 ea)	110-Handfinish - 4 - Assembly		5102643
D5594-1	GH Bushing	6 pcs (6 ea)	110-Handfinish - 4 - Assembly		5193419
D5594-3	GH Washer	6 pcs (6 ea)	110-Handfinish - 4 - Assembly		5196642
NAS1149C0832R	Washer (AN960C816L)	3 Ea (3 ea)	110-Handfinish - 4 - Assembly		5076017
NAS1291C8	Nut, Self-Locking	3 Ea (3 ea)	110-Handfinish - 4 - Assembly		512909
23111AG100LE	Washer	1 Ea (1 ea)	130-Packaging 1-1 - Pick Kit - B4B		5196062 ✓
ASNA0045BC100L	Nut, Castellated	1 Ea (1 ea)	130-Packaging 1-1 - Pick Kit - B4B		5109874 ✓
DHS411-101.3106	Metric Hex Head Aerospace Bolt	1 Ea (1 ea)	130-Packaging 1-1 - Pick Kit - B4B		5198684 ✓
MS21141S-06-05	Rivet	20 Ea (20 ea)	130-Packaging 1-1 - Pick Kit - B4B		5108056 ✓
MS24665-231	Cotter Pin	1 pcs (1 ea)	130-Packaging 1-1 - Pick Kit - B4B		5113815 ✓
Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	
110-Handfinish - 4 - Assembly	22201BC120090L	1	0	0	
	23111AG120LE	1	40	0	
	AN8C56A	3	18	0	
	ASN52320BH120N	1	9	0	
	D130-1048-042	1	0	0	
	D130-1048-052	1	0	0	
	D5569-3	1	0	0	
	D5570-1	1	4	0	
	D5594-1	6	12	0	
	D5594-3	6	15	0	
	NAS1149C0832R	3	307	0	
	NAS1291C8	3	32	0	
	23111AG100LE	1	4	0	
	ASNA0045BC100L	1	6	0	
130-Packaging 1-1 - Pick Kit - B4B	DHS411-101.3106	1	4	0	
	MS21141S-06-05	20	90	0	
	MS24665-231	1	113	0	
Part Specifications					
Specifications could not be found.					

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QTY -012	PIN	DESCRIPTION
X	D130-1048-012	BASIC SKIDTUBE INSTL, RH (EC130)
1	D130-1048-042	SKIDTUBE ASSY
1	D5465-2	FWD WEARPLATE RH
1	D5478-1	AFT WEARPLATE
1	D5569-3	SKIDTUBE BLADE
1	D5570-1	BLADE PLUG
6	D5594-1	GH BUSHING
6	D5594-3	GH WASHER
1	22201BC120090L	BOLT
1	23111AG120LE	WASHER (OR NAS1149C0332R)
8	AN8C5A	BOLT
3	AN8C56A	BOLT, MACHINE
1	ASN52320BH120N	NUT
8	NAS1149C0332R	WASHER
3	NAS1149C0832R	WASHER
3	NAS1291C8	NUT, SELF-LOCKING
1	23111AG100LE	WASHER (OR NAS1149C0732R)
1	ASNAD045BC100L	NUT, CATELLATED
1	D48411-101.3108	BOLT
1	EN2367-18028	COTTER PIN (OR MS24685-231)
20	MS2114180605	MAXIBOLT, BLIND, PAN HEAD (CR7621508-05)



- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: N/A
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 25.98 lbs
 - 8) HARDWARE NOT SHOWN. TO BE SHIPPED LOOSE.
 - 9) TORQUE BOLT TO 15 - 25 in-lbs
 - 10) TORQUE NUT TO 44 - 62 in-lbs
 - 11) TORQUE NUT TO 62 - 71 in-lbs
 - 12) SEAL FAYING SURFACES WITH SIKAFLEX-241-291
 - 13) FILLET SEAL WITH SIKAFLEX-241-291
 - 14) PLUG SEAL SADDLE HOLES WITH SIKAFLEX-241-291
- ENSURE SADDLE BORE IS FREE OF SEALANT

RELEASED
2019 JUN 18 AM
ECN19-625

REV.	DESCRIPTION	BY	DATE
C	REPLACED SKIDTUBE BLADE D5569-3 WAS-1	ZF	19.04.05
B	REDRAWN, ADDED VIEW B & C, C.C. ADDED ALTERNATE HARDWARE, ADDED TORQUE AND SEALANT NOTES	ZF	19.02.05
A	NEW ISSUE	ZF	18.05.08
DESIGN	NO		
DRAWN	ZF		
CHECKED	MW		
MFG. APPR.	JFS		
APPROVED	NO		
DE APPR.	CP		
DATE	19.04.05		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.	D130-1048-012
REV. C	SHEET 1 OF 1
TITLE	SKIDTUBE INSTL, RH (EC130)
SCALE	NTS
DATE	19.04.05

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 196756 MLS
190620

Entered: _____

Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐		DEPARTMENT/PROCESS		MRB (QS1042)	
Date : _____		Sequence #: _____		QTY Affected : _____			
Description Work Order Deviation		Disposition					
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐							
Completed By		Lead hand / Supervisor					
QC / QA Coordinator		Other/Details:					

5.0 PARTS LISTS

5.1 D130-1048-011/-012/-013/-014/-051/-052/-053 Skidtube and Wearplates

QTY -011	QTY -012	QTY -013	QTY -014	QTY -051	QTY -052	QTY -053	P/N	DESCRIPTION
X							D130-1048-011	BASIC SKIDTUBE INSTALLATION, LH
	X						D130-1048-012	BASIC SKIDTUBE INSTALLATION, RH
		X					D130-1048-013	HEAVY DUTY SKIDTUBE INSTALLATION, LH
			X				D130-1048-014	HEAVY DUTY SKIDTUBE INSTALLATION, RH
1		1		X			D130-1048-051 (2)(3)	REPLACEMENT WEARPLATES, LH
	1		1		X		D130-1048-052 (2)(3)	REPLACEMENT WEARPLATES, RH
		1	1			X	D130-1048-053 (3)	MIDTUBE WEARPLATE KIT
1		1					D130-1048-041	SKIDTUBE ASSY, LH
			1				D130-1048-042	SKIDTUBE ASSY, RH
				1			D5465-1	FWD WEARPLATE, LH
					1		D5465-2	FWD WEARPLATE, RH
				1	1		D5478-1	AFT WEARPLATE
						1	D5613-041	MIDTUBE WEARPLATE
				8	8		AN3C5A	BOLT
				8	8		NAS1149C0332R	WASHER
						2	D5678-1 (4)	NUT
						2	D4012-1	CUSHION
		1	1				D5569-1 (3)	HEAVY DUTY SKIDTUBE BLADE
1							D5569-3 (2)	SKIDTUBE BLADE
1	1	1	1				D5570-1 (2)(3)	BLADE PLUG
1		1	1				22201BC-20090L (1)(2)(3)	BOLT
1	1	1	1				23111AG120LE (1)(2)(3)	WASHER (or NAS1149C0832R)
1		1	1				ASN52320B-1120N (1)(2)(3)	NUT
6		6	6				D5594-1 (2)(3)	GH BUSHING
6		6	6				D5594-3 (2)(3)	GH WASHER
3		3	3				AN8C5A (2)(3)	BOLT
3		3	3				NAS1149C0832R (2)(3)	WASHER
3		3	3				NAS1291C8 (2)(3)	NUT
1		1	1				DHS411-1013106 (1)	BOLT
1		1	1				23111AG100LE (1)	WASHER (or NAS1149C0732R)
1		1	1				ASNA004BC100L (1)	NUT, CASTELLATED
1		1	1				EN2367-13028 (1)	COTTER PIN (or MS24668-231)
20	20	20	20				MS21141S1605	MAXIBOLT, BLIND, PAN HEAD (or CR7621S06-05)

- (1) Airbus Helicopter Part Numbers (or alternative) included in kit
 (2) Pre-assembled on D130-1048-011/-012 Skidtube
 (3) Pre-assembled on D130-1048-013/-014 Skidtube
 (4) Pre-assembled on D5613-041 Midtube Wearplate

